

Appl. No. : 10/031,021
Filed : March 19, 2002

AMENDMENTS TO THE CLAIMS

1. **(Currently amended)** A ~~non-human sterile female~~ genetically modified ~~mammal mouse~~ comprising a mutation, a partial deletion or a total deletion in the ~~endogenous~~ genetic sequence encoding the wild type alpha-fetoprotein (AFP).
2. **(Cancelled)**
3. **(Cancelled)**
4. **(Previously presented)** The ~~non-human mammal sterile female genetically modified mouse~~ of claim 1, wherein said ~~non-human mammal sterile female genetically modified mouse~~ is homozygous for a mutation, a partial deletion or a total deletion in the ~~endogenous~~ genetic sequence encoding the wild type alpha-fetoprotein (AFP).
5. **(Cancelled)**
6. **(Currently amended)** The ~~non-human mammal sterile female genetically modified mouse~~ of claim 4, wherein said ~~non-human mammal sterile female genetically modified mouse~~ does not undergo a menstrual cyclization.
7. **(Currently amended)** The ~~non-human mammal sterile female genetically modified mouse~~ of claim 4, wherein said ~~non-human mammal sterile female genetically modified mouse~~ does not allow an uterine nidification of an embryo.
8. **(Cancelled)**
9. **(Withdrawn)** A pluripotential embryonic stem cell comprising a partial or a total deletion of a genetic sequence encoding a mammal alpha-fetoprotein (AFP).
10. **(Currently amended)** A method for identifying an agent for use in preventing osteoporosis, increasing fertility, or preventing conception comprising:
 - obtaining a ~~non-human sterile female~~ genetically modified ~~mammal mouse~~ comprising a mutation, a partial deletion or a total deletion in the ~~endogenous~~ genetic sequence encoding the wild type mammal alpha-fetoprotein (AFP);
 - contacting said ~~sterile female~~ genetically modified ~~mammal mouse~~ with said agent; and
 - determining the effects of said agent on osteoporosis, fertility or contraception in said ~~sterile female~~ genetically modified ~~mammal mouse~~.
11. **(Withdrawn)** A method for identifying a molecule that is able to bind to alpha-fetoprotein or a portion thereof comprising contacting said alpha-fetoprotein or portion thereof

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with a molecule and measuring binding of said molecule to said alpha-fetoprotein or portion thereof.

12. **(Withdrawn)** A composition comprising alpha-fetoprotein or a portion thereof fixed to a solid surface.

13. **(Withdrawn)** The embryonic stem cell of claim 9, wherein said stem cell is a mouse cell.

14. **(New)** A genetically modified mouse, wherein said genetically modified mouse is heterozygous for a mutation, a partial deletion or a total deletion in endogenous genetic sequence encoding the wild type alpha-fetoprotein (AFP).

15. **(New)** The genetically modified mouse of Claim 14, wherein said mutation, partial deletion, or total deletion in said endogenous genetic sequence encoding the wild type alpha-fetoprotein causes sterility when present in homozygous form in a female mouse.